

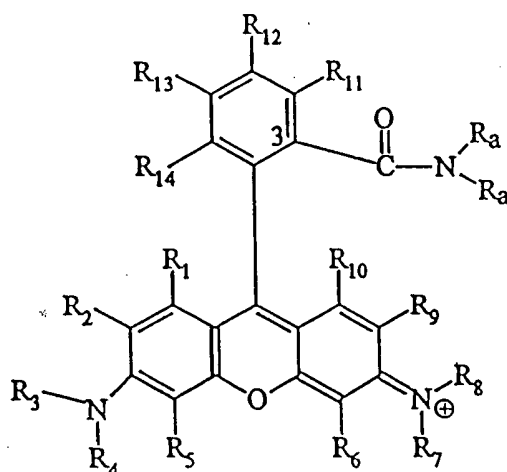
**CLEAN VERSION OF REWRITTEN OR ADDED CLAIMS
PURSUANT TO 37 CFR § 1.21 (c)(1)(i)**

Please cancel claims 3, 4 & 9 without prejudice.

Please amend the following claims.

1. A method of labeling an organic compound for fluorescent detection, comprising:
providing a fluorophore having the structure illustrated by Formula A

FORMULA A



where R₁ and R₁₀ taken alone are hydrogen or halogen; R₂, R₅, R₆ and R₉ taken alone are hydrogen, alkyl, carboxyalkyl, aminoalkyl, alkylether, alkylthioether, halogen or alkoxy; R₃, R₄, R₇ and R₈ taken alone are hydrogen, and substituted or unsubstituted alkyl, carboxyalkyl, aminoalkyl, cycloalkyl, aryl; R₂ and R₃ taken together are alkyl chains each having from 2 to 5 carbon atoms connecting the 2' carbon to the nitrogen attached to the 3' carbon; R₉ and R₈ taken together are alkyl chains each having from 2 to 5 carbon atoms connecting the 7' carbon to the nitrogen attached to the 6' carbon; R₄ and R₅ taken together are alkyl, each having from 2 to 5 carbon atoms connecting the 4' carbon to the nitrogen attached to the 3' carbon; R₆ and R₇ taken together are alkyl, each having from 2 to 5 carbon

C1
Cantel
Hm?

atoms connecting the 5' carbon to the nitrogen attached to the 6' carbon; R_3 and R_4 taken together form an alkyl or alkylene chain containing up to 5 atoms in the principal chain, consisting of carbon and one or more heteroatoms from the group consisting of nitrogen or oxygen, with both terminal valence bonds of said chain being attached to the nitrogen attached to the 3' carbon; R_7 and R_8 taken together form an alkyl or alkylene chain containing up to 5 atoms in the principal chain, consisting of carbon and one or more heteroatoms from the group consisting of nitrogen or oxygen, with both terminal valence bonds of said chain being attached to the nitrogen attached to the 6' carbon; R_{11} , R_{12} , R_{13} , and R_{14} are each hydrogen or halogen, where R_a and R_a are selected from the group consisting of alkyl, carboxyalkyl, aminoalkyl, cycloalkyl, aryl and arylalkyl, wherein R_a confers resistance to lactam ring formation, and further wherein R_a contains a functional group; and, conjugating the fluorophore with a biomolecule selected from the group consisting of an amino acid, peptide, protein, nucleotide, oligonucleotide, nucleic acid, cell surface membrane and viral coat through the R_a functional group of the fluorophore, the resultant conjugate being fluorescent upon excitation with light of a determinable wavelength.

C2

5. The method as in claim 1 wherein the biomolecule is attached to a solid support.

6. The method as in claim 1 wherein the biomolecule is an oligonucleotide and the fluorophore is attached via a phosphoramidite at the 5' end in the conjugate.

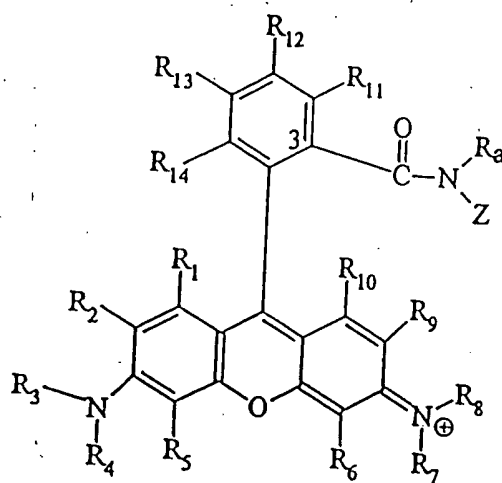
C3

8. The method as in claim 1 wherein the biomolecule is an amino acid, a peptide or a protein, and the fluorophore is attached at an amine or sulfhydryl in the conjugate.

C4

10. A fluorophore conjugate comprising:

a conjugated substance and a fluorophore, the conjugated substance being an amino acid, peptide, protein, nucleotide, oligonucleotide, or nucleic acid to which is attached one or more fluorophores, the fluorophore conjugate having the structure illustrated by Formula 1

FORMULA 1

where R_1 and R_{10} taken alone are hydrogen or halogen; R_2 , R_5 , R_6 and R_9 taken alone are hydrogen, alkyl, carboxyalkyl, aminoalkyl, alkylether, alkylthioether, halogen or alkoxy; R_3 , R_4 , R_7 and R_8 taken alone are hydrogen, and substituted or unsubstituted alkyl, carboxyalkyl, aminoalkyl, cycloalkyl, aryl; R_2 and R_3 taken together are alkyl chains each having from 2 to 5 carbon atoms connecting the 2' carbon to the nitrogen attached to the 3' carbon; R_9 and R_8 taken together are alkyl chains each having from 2 to 5 carbon atoms connecting the 7' carbon to the nitrogen attached to the 6' carbon; R_4 and R_5 taken together are alkyl, each having from 2 to 5 carbon atoms connecting the 4' carbon to the nitrogen attached to the 3' carbon; R_6 and R_7 taken together are alkyl, each having from 2 to 5 carbon atoms connecting the 5' carbon to the nitrogen attached to the 6' carbon; R_3 and R_4 taken together form an alkyl or alkylene chain containing up to 5 atoms in the principal chain, consisting of carbon and one or more heteroatoms from the group consisting of nitrogen or oxygen, with both terminal valence bonds of said chain being attached to the nitrogen attached to the 3' carbon; R_7 and R_8 taken together form an alkyl or alkylene chain containing up to 5 atoms in the principal chain, consisting of carbon and one or more heteroatoms from the group consisting of nitrogen or oxygen, with both terminal valence bonds of said chain being attached to the nitrogen attached to the 6' carbon; R_{11} , R_{12} , R_{13} , and R_{14} are each hydrogen or halogen, where R_a is an alkyl, carboxyalkyl, aminoalkyl, cycloalkyl, aryl, or arylalkyl having from 1 to 10 carbon atoms, and Z represents a linker plus the conjugated substance, wherein said conjugated substance lacks a lactam ring.